

**BY ORDER OF THE COMMANDER
HEADQUARTERS 377TH AIR BASE WING (AFMC)
KIRTLAND AIR FORCE BASE,
NEW MEXICO 87117-5606**

KAFB INSTRUCTION 48-102

3 MARCH 1997

Aerospace Medicine



**OCCUPATIONAL BLOOD AND BODY FLUID
EXPOSURE CONTROL PLAN**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AF Policy Directive 48-1, *Aerospace Medical Program*. It establishes guidelines for compliance with Title 29 of the Code of Federal Regulations (CFR), Part 1910.1030, *Occupational Exposure to Bloodborne Pathogens*. It applies to employees who have a potential for occupational exposure to blood and other potentially infectious material as part of their duties. This publication primarily involves 377th Medical Group (MDG) personnel; however, rescue firefighters, security police, Office of Special Investigations (OSI) and pararescue personnel have a potential for occupational exposure. This instruction is not limited solely to the occupations identified above, and the examples should not be construed as all inclusive. This instruction also applies to people who are required to provide medical assistance as a part of their duties or who may be expected, as part of their duties, to come into contact with blood or body fluids.

SUMMARY OF REVISIONS

Expanded application of occupations and personnel governed under guidelines; identifies that examples of occupations with potential body fluid exposure may not be all inclusive. Specifies work center operating instructions must include how hepatitis B vaccine is made available, vaccination tracking and record-keeping, and post-exposure procedures. Deletes requirement to use AF Form 55, but retains requirement to maintain training documentation for three years using AF Form 2767, *Occupational Health Training and Protective Equipment Fit Testing*. Adds requirement for civilian medical service employees to take hepatitis B vaccine.

1. REFERENCES.

- 1.1. 29 CFR Part 1910.1030, *Occupational Exposure to Bloodborne Pathogens*; Final Rule, 6 Dec 91, Occupational Safety and Health Administration (OSHA)
- 1.2. AFI 44-108, *Infection Control Program*
- 1.3. 377 MDG Operating Instruction 48-104, *The Hospital Employee Health Program*
- 1.4. 377 MDG Operating Instruction 44-53, *Infection Control Program*
- 1.5. New Mexico Solid Waste Management regulations
- 1.6. HQ AFMC/SGPM, letter #94-16, Occupational Exposure to Bloodborne Pathogens - Interpretive Quips
- 1.7. HQ AFMC/SG, letter #97001, Hepatitis B Immunization Policy for Air Force Medical and Dental Personnel

2. DEFINITIONS.

- 2.1. Blood.** Human blood, human blood components, and products from human blood.
- 2.2. Bloodborne Pathogens.** Pathogenic microorganisms present in human blood which can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).
- 2.3. Contaminated.** The presence, or the reasonably anticipated presence, of blood or other potentially infectious material on an item or surface.
- 2.4. Contaminated Waste.** Refers to OSHA regulated waste. Contaminated waste would include drapes, sponges, or other materials saturated with blood or other potentially infectious material. Contaminated waste includes sharps. Sharps are not recapped, bent, or purposely separated by hand. Sharps containers are located as close to the point of use as is logistically possible.
- 2.5. Exposure Incident.** A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact (piercing skin or mucous membrane) with blood or other potentially infectious material that results from the performance of an employee's duties.
- 2.6. Occupational Exposure.** Reasonably anticipated skin, eye, mucous membrane, or parenteral contact (piercing skin or mucous membrane) with blood or other potentially infectious materials that may result from the performance of an employee's duties.
- 2.7. Personal Protective Equipment (PPE).** Specialized clothing or equipment worn by an employee for protection against a workplace hazard.
- 2.8. Potentially Infectious Material.**
 - 2.8.1. Human body fluids: semen; vaginal secretions; cerebrospinal, synovial, pleural, pericardial, peritoneal, or amniotic fluid; saliva in dental procedures; any body fluid that is visibly contaminated with blood; and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.
 - 2.8.2. Any unfixed tissue or organ (other than intact skin) from a human (living or dead).
- 2.9. Universal Precautions.** An infectious disease control system intended to prevent employees from parenteral, mucous membrane, and non-intact skin exposures to bloodborne pathogens. Employees will treat all blood and other potentially infectious material as infectious.

3. EXPOSURE DETERMINATION.

3.1. Job classifications where all employees have potential exposure to bloodborne pathogens.

Job Title

Aeromedical technicians	Nurses
Biomedical repair	Nursing assistants
Cardiopulmonary technicians	Ophthalmology technicians
Dental technicians	Physician assistants
Dentists	Physicians
Immunization technicians	Physical therapists
Laboratory officers	Physical therapy technicians
Laboratory technicians	Radiology technicians
Medical technicians	Surgery/ambulatory surgery technicians
Nurse practitioners	

3.2. Job classifications where some employees have potential exposure to bloodborne pathogens.

Job Title	Task
Firefighter	Emergency rescue procedures or rendering first aid
Hospital housekeeper personnel	Handling contaminated refuse
Life support specialist	Servicing aircrew face masks
Optometrist	Performing surgery or treating accident victims
Optometry technicians	Assisting in surgery or treating accident victims
OSI personnel	Investigation or apprehension procedures
Pararescue personnel	Emergency rescue procedures or rendering first aid
Red Cross workers	Working in direct patient care such as bathing patients
Lifeguards	Providing cardiopulmonary resuscitation (CPR)/life saving procedures
Security police (law enforcement, confinement perso	Emergency rescue procedures, rendering first aid, or apprehension procedures
AF Safety Agency accident investigators	Investigating accidents involving human remains
Employees required to provide medical assistance as part of their job duties	Providing medical assistance

NOTE: The above listing may not include all potential occupational exposures

4. PROCEDURES.

4.1. Each work center (section, department, or squadron, as appropriate) will specify written procedures and work area controls in a workplace specific operating instruction (OI) which applies to the area. The OI must be specific enough to cover anticipated duties and procedures where exposure to bloodborne pathogens may reasonably occur. The workplace specific OI must also include how the workplace makes HBV immunization available, how employees are tracked to ensure entire hepatitis B immunization series is received, recordkeeping for program, and post-exposure procedures. Information in the OI will be included in the training plan for the work center. Universal precautions in conjunction with effective work practice controls will be used to minimize or eliminate potential exposure risk to bloodborne pathogens. All blood and other potentially infectious material must have appropriate barriers established between the patient's blood and other potentially infectious materials and the employee. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious.

4.1.1. Handwashing facilities are located throughout the 377 MDG in examination rooms, restrooms, treatment areas, specimen collection areas, and employee work areas. In areas where handwashing facilities are not feasible (i.e., on-scene rescue), antiseptic hand cleaners will be provided for limited use; however, hands will be washed with soap and running water as soon as feasible. All personnel will be briefed on the location of handwashing facilities as part of their training.

4.1.2. Handwashing is the responsibility of each employee. The employee's supervisor or section head will ensure the handwashing responsibility is enforced. Hands will be washed:

4.1.2.1. Immediately or soon after removal of gloves or personal protective equipment.

4.1.2.2. Immediately or soon after coming in contact with blood or other potentially infectious material.

4.1.2.3. After arrival in the workplace.

4.1.2.4. Before and after performing any personal body function, such as eating, sneezing, and using the restroom.

4.1.2.5. Before performing invasive procedures.

4.1.2.6. Before and after touching wounds, whether surgical, traumatic or associated with an invasive device.

4.1.2.7. Before and after each patient contact.

4.1.2.8. After touching inanimate sources that are probably contaminated with potentially infectious material.

4.1.2.9. Before and after entering and working in a highly contaminated area, such as an isolation room, dirty utility room, or central supply decontamination room.

4.1.2.10. After any situation where microbial contamination of the hands may occur.

4.1.2.11. Before departure for home.

4.1.3. All employees will stress proper management of needles and sharps. Emphasis should be placed on the minimal handling of these items.

4.1.3.1. Use extreme caution when disposing of needles and sharps. Do not recap needles and sharps (except as permitted by 4.1.3.2). Dispose of needles or sharps in puncture-resistant,

leakproof red plastic containers, appropriately designated for needles and sharps disposal. Maintain containers according to 377 MDG Operating Instruction 44-53 and dispose of containers when three-fourths full. The containers are considered contaminated waste and must be disposed of through the 377 MDG contract.

4.1.3.2. Recapping and reusing of needles is allowed only in the Dental Clinic or Anesthesia Department. Use a mechanical device or a one-handed technique to recap or remove needle. Place contaminated reusable needles in a puncture-resistant, leakproof, appropriately labeled container until properly processed. Do not store or process reusable needles that are contaminated with blood or other potentially infectious material in a manner requiring employees to reach by hand into the container where these needles have been placed. Make every effort to minimize risk of injury when processing needles. Recapping devices may be used in other sections of the 377 MDG if approved by Infection Control.

4.1.4. Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses, are prohibited in work areas where there is reasonable probability of occupational exposure.

4.1.5. Do not store or set food and drinks on countertops or benchtops, or where the potential for exposure to infectious material exists. Store food and drinks only in refrigerators designated for storing food.

4.1.6. Mouth pipetting or suctioning of blood or other potentially infectious material is prohibited.

4.1.7. Place specimens of blood or other potentially infectious material in containers which prevent leakage during collection, handling, processing, storage, transport, or shipping.

4.1.7.1. Red plastic bags are the primary containers used for disposal of infectious waste. If specimen could puncture primary container, place primary container in a puncture resistant secondary container. Red bags containing liquids must have an appropriate amount of absorbent material (such as kitty litter) added. Place potentially infectious material accumulated during an emergency rescue or first aid procedure in non-hospital areas in a red plastic bag and transport with the patient to the hospital's Emergency Department (ED). If time does not permit transport of the potentially infectious material with the patient, place potentially infectious material in a red bag and transport to the ED as soon as possible.

4.1.7.2. If specimen leakage is anticipated, double or triple bag primary container using red plastic bags.

4.1.8. Decontaminate medical equipment which becomes contaminated with blood or other potentially infectious material as necessary prior to reuse, servicing, or shipping, unless documented that decontamination is not feasible. Trained personnel will decontaminate other contaminated equipment such as rescue equipment.

4.1.8.1. Attach a readily observable biohazard label to that portion of the equipment which remains contaminated.

4.1.8.2. Submitting section will ensure all effected employees, the servicing representative, and manufacturer, are informed of the biohazard potential prior to handling, servicing, or shipping, so appropriate precautions can be taken.

4.1.9. Supervisors will provide appropriate personal protective equipment (PPE) for all employees at risk. This may include gloves, gowns, laboratory coats, masks and eye protection, mouthpieces, and resuscitation bags or other ventilation devices. Supervisors must determine necessary PPE based on work area and conditions. Specify PPE in operating instruction.

4.1.9.1. All employees will use PPE to minimize or eliminate exposure risks. Appropriate PPE does not permit blood or other potentially infectious material to pass through or to reach the employee's work clothes, skin, eyes, mouth, or other mucous membranes, under normal condition of use and for the duration of use.

4.1.9.2. The supervisor or section head will enforce employee use of PPE. Employees may decline use of PPE under rare and extraordinary circumstances where PPE prevents health care or poses a safety hazard to the employee or co-workers.

4.1.9.3. The supervisor or section head will ensure availability of PPE in the work area. Hypo-allergenic gloves, powderless gloves, or other similar alternatives will be available for those employees who are allergic to the gloves normally used.

4.1.9.4. Cleaning, laundering, disposal, repair, and replacement of PPE will be done in work area using cleaning agents approved by 377 MDG Infection Control.

4.1.9.5. Remove all PPE prior to leaving the work area.

4.1.9.6. Remove the garment immediately or as soon as possible after the incident if garment is penetrated by blood or other potentially infectious material.

4.1.9.7. Place all contaminated PPE in an appropriately designated area or container for storage prior to decontamination or disposal. Place PPE which is saturated with blood or other potentially infectious material in a red bag for disposal in accordance with paragraph 4.1.7.1 or decontaminate prior to disposal.

4.1.9.8. Employees must wear disposable gloves when it can be reasonably anticipated the employee will have direct contact with blood or other potentially infectious material, mucous membranes, or non-intact skin; when performing vascular access procedures; and when handling or touching contaminated items or surfaces. Replace gloves as soon as practical when contaminated, torn, punctured, or when their ability to function as a barrier is compromised.

4.1.9.9. Use masks, eye protection, and face shields whenever splashes, spray, spatter, or droplets of blood or other potentially infectious material may be generated and contamination of the eyes, nose, or mouth is a possibility. Select masks, eye protection, and face shield based on anticipated degree of exposure. Disinfect goggles between uses if goggles are shared within a workcenter.

4.1.9.10. Wear outer protective clothing such as gowns, aprons, lab coats, or clinic jackets in occupational exposure situations. The type and characteristics depend on the task and degree of exposure anticipated.

4.1.9.11. Wear heavy duty, industrial grade utility gloves when any activity such as handling trash, decontamination of instruments, environmental cleaning, or patient rescue is performed. Wash utility gloves when soiling occurs and change when punctured or torn. Wash damaged gloves before disposal, if heavily contaminated. After removing gloves, employees will wash their hands with an antimicrobial soap as soon as possible.

4.1.10. Supervisors or section heads are responsible for ensuring work areas are maintained in a clean and sanitary condition.

4.1.10.1. Establish operating instructions for each work area indicating schedule for cleaning and methods of decontamination based on work area and procedures performed in the area. 377 MDG facility manager will monitor 377 MDG contracted housekeeping activities.

4.1.10.2. Clean and decontaminate all equipment and work surfaces after contact with blood or other potentially infectious material.

4.1.10.2.1. Decontamination. Clean and decontaminate work surfaces with approved disinfectant after completion of procedures, immediately after any blood or other potentially infectious material spill, and at the end of each work shift.

4.1.10.2.2. Immediately replace protective coverings such as plastic wrap, aluminum foil, or impervious paper used to cover equipment and work surfaces when they become soiled, or at the end of the work shift, if contamination occurs.

4.1.10.2.3. Inspect all bins, pails, cans, and similar receptacles intended for reuse for contamination by blood or other potentially infectious material and decontaminate on a regular basis, decontaminate immediately, or as soon as feasible upon visible contamination.

4.1.10.2.4. Do not pick up broken glassware by hand. Remove glass using mechanical means such as a brush and dust pan, tongs, or forceps.

4.1.10.3. Proper disposal of contaminated waste is essential to minimize or eliminate exposure risk. Place contaminated waste from trauma victims outside the hospital in red plastic bags and transport to the ED with the victim.

4.2. Handle contaminated laundry as little as possible with a minimum of agitation to prevent gross microbial contamination of the air and of persons handling the laundry.

4.2.1. Bag all contaminated laundry or put into carts at the location where it was used and do not sort or rinse in the location of use. Clearly label laundry as contaminated or place in a red bag. Place and transport contaminated laundry in bags or containers labeled or color-coded as a biohazard.

4.2.2. When shipping wet contaminated laundry, place it in bags or containers which will prevent soak through and leakage. Employees handling contaminated laundry will wear protective gloves and other appropriate personal protective equipment.

4.3. Hepatitis B Immunization.

4.3.1. Personnel required to provide medical assistance as part of their duties or have expected occupational exposure to blood or other potentially infectious material, will be offered hepatitis B virus (HBV) immunization if occupationally exposed. HBV immunization will be offered to other occupationally exposed personnel before they begin work. HBV immunizations will be offered through the 377 MDG. Occupationally exposed individuals in training programs from other institutions will be required to provide proof of HBV immunization to their supervisor prior to beginning training. Supervisors may contact the Public Health Flight (PHF) if questions arise.

4.3.2. Hospital personnel will inprocess through PHF within five working days of assignment to the 377 MGD. PHF will screen records and process the employee according to Employee Health

Program guidelines. If the employee has direct patient contact as indicated by their job series or place of work and has not been previously immunized against HBV, the employee is required to take the HBV immunization.

4.3.3. Supervisors must review HBV immunization as employees in process into the fire department, security police, law enforcement, confinement, OSI, life support, lifeguard, pararescue, or other workplaces where providing medical assistance is a job requirement and occupational exposure to blood and body fluids is reasonably anticipated. Questions concerning completion of the vaccine series or HBV-related issues may be addressed to PHF. These employees may decline HBV immunization, but they must sign a declination statement shown in Attachment 1. If they decline HBV vaccine they may later receive the vaccine.

4.3.4. All work centers (section, department, or squadron, as appropriate) will establish written procedures to be included in their workplace specific operating instruction (paragraph 4.1) on how their area makes HBV immunizations available, employee tracking and record keeping, as well as procedures to take following an exposure.

4.4. Training. Contract personnel are responsible for training and documentation on all contract employees whose job titles are listed in paragraph 3.1 and 3.2. PHF and the 377 MDG Infection Control officer will develop and maintain the annual training program for supervisors or trainers of military, civil service, and volunteer personnel who have reasonably anticipated exposure to blood or other potentially infectious material. Supervisors or other trainers are responsible for ensuring training is accomplished for all current employees, including volunteers, with potential exposure to blood or other potentially infectious material. Inprocessing individuals will receive training from their supervisor prior to performing any duties which involve exposure to blood or other potentially infectious material. Training will be documented on an AF Form 2767, *Occupational Health Training and Protective Equipment Fit Testing*. After training is completed, forward the completed and signed AF Form 2767 to PHF to be included in the appropriate industrial case file. Training will be accomplished and documented on an annual basis. Anyone may request training assistance from PHF. For work centers outside the medical treatment facility, PHF will conduct the annual supervisor's training upon request.

4.5. Exposure Incidents.

4.5.1. Report all exposure incidents to the supervisor on duty. The employee should seek care at the ED where a health care provider (HCP) will provide wound care and initial laboratory testing. Initial laboratory testing includes HIV antibody (requires informed consent for civilian employees), hepatitis B surface antibody (HBsAb), and hepatitis C antibody (Hep C) testing. The health care provider (HCP) will issue order for testing source patient for HIV antibody (requires informed consent if patient is civilian), hepatitis B surface antigen (HBsAg), hepatitis B core antibody (HBcAb), and Hep C testing.

4.5.2. The HCP will refer the employee to PHF for follow-up. PHF assists if necessary in contacting the source patient for necessary testing.

4.5.3. The employee's medical record, with laboratory tests (HIV, HBsAb, and Hep C), the employee's HBV immunization information, and the source patient's laboratory tests (HIV, HBsAg, HBcAb, and Hep C) are assembled by PHF for review by the HCP.

4.5.4. The HCP will determine further evaluation, treatment, and schedule for follow-ups. PHF is the point of contact for any follow-up needed. Standard Form (SF) 600, *Health Record--Chrono-*

logical Record of Medical Care (Exposure Incident overprint), is used to document circumstances of the exposure incident, HBV vaccination status, laboratory tests, and recommendations of the HCP.

4.6. Record Keeping.

4.6.1. HBV Immunization: A SF 600, *Health Record--Chronological Record of Medical Care* (HBV Immunization overprint), will be used to document HBV immunization history in the medical record. The declination statement (Attachment 1) will be filed in medical record if employee declines HBV immunization.

4.6.2. Exposure Incidents. SF Form 558, *Medical Record--Emergency Care and Treatment*, and SF 600 (Exposure Incident overprint), will be filed in employee's medical record. Additional entries will be made in medical record as follow-up treatment and testing are done.

4.6.3. Training Records. Supervisors document bloodborne pathogen training on AF Form 2767. Supervisors should forward completed AF Form 2767 to PHF for filing in the appropriate industrial case file within three work days after completing training. Supervisors must maintain all training documentation for three years. Training documentation includes a lesson plan, trainer name, trainer qualifications, and a list of attendees.

5. FORMS PRESCRIBED.

5.1. AF 2767, *Occupational Health Training and Protective Equipment Fit Testing*

5.2. SF 600, *Health Record--Chronological Record of Medical Care* (Exposure Incident Overprint)

5.3. SF 600, *Health Record--Chronological Record of Medical Care* (HBV Immunization Overprint)

CHARLES H. COMBS, Colonel, USAF, DC
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Attachment 1**HEPATITIS B DECLINATION STATEMENT**

Civil service employees or volunteers who decline immunization must sign a declination statement on a Standard Form 600, **Health Record--Chronological Record of Medical Care**.

377th Aerospace Medicine Squadron/SGPM

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DECLINATION STATEMENT**FOR****HEPATITIS B IMMUNIZATION**

I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine at no charge to myself.

However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future, I continue to have occupational exposure to blood and or other potentially infectious materials while employed by the Department of Defense and I want to be vaccinated with hepatitis B, I can receive the vaccination series at no charge to myself.

NAME

SIGNATURE

DUTY SECTION

DATE